

TATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
PUBLIC NOTICE NO. 20210708 – IN0033073 – D
DATE OF NOTICE: JULY 8, 2021
DATE RESPONSE DUE: AUGUST 9, 2021

The Office of Water Quality proposes the following NPDES DRAFT PERMIT:

MAJOR – MODIFICATION

EVANSVILLE EAST (city) WWTP, Permit No. IN0033073, VANDERBURGH COUNTY, 1500 Waterworks Road, Evansville, IN. This municipal modification is due to the relocation of the main plant outfall. Permit Manager: John Donnellan, 317/234-0865, jdonnell@idem.in.gov. Posted online at <https://www.in.gov/idem/6408.htm>.

PROCEDURES TO FILE A RESPONSE

Draft can be viewed or copied (10¢ per page) at IDEM/OWQ NPDES PS, 100 North Senate Avenue, (Rm 1203) Indianapolis, IN, 46204 (east end elevators) from 9 – 4, Mon - Fri, (except state holidays). A copy of the Draft Permit is on file at the local County Health Department. Please tell others you think would be interested in this matter. For your rights & responsibilities see: Public Participation Guide: <http://www.in.gov/idem/5474.htm> or Citizens' Guide to IDEM: <https://www.in.gov/idem/6900.htm>.

Response Comments: The proposed decision to issue a permit is tentative. Interested persons are invited to submit written comments on the Draft permit. All comments must be postmarked no later than the Response Date noted to be considered in the decision to issue a Final permit. Deliver or mail all requests or comments to the attention of the Permit Writer at the above address, (mail code 65-42 PS).

To Request a Public Hearing:

Any person may request a Public Hearing. A written request must be submitted to the above address on or before the Response Date noted. The written request shall include: the name and address of the person making the request, the interest of the person making the request, persons represented by the person making the request, the reason for the request and the issues proposed for consideration at the Hearing. IDEM will determine whether to hold a Public Hearing based on the comments and the rationale for the request. Public Notice of such a Hearing will be published in at least one newspaper in the geographical area of the discharge and sent to anyone submitting written comments and/or making such request and whose name is on the mailing list at least 30 days prior to the Hearing.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

100 N. Senate Avenue • Indianapolis, IN 46204
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Eric J. Holcomb
Governor

Bruno Pigott
Commissioner

July 8, 2021

VIA ELECTRONIC MAIL

The Honorable Lloyd Winnecke, Mayor
City of Evansville
1 NW Martin Luther King, Jr. Boulevard
Evansville, Indiana 47708

Dear Mayor Winnecke:

Re: Draft Modification of NPDES Permit
No. IN0033073 for the City of Evansville East
Wastewater Treatment Plant
Vanderburgh County

Your request for permit modification, submitted May 25, 2021, has been reviewed and processed in accordance with rules adopted under 327 IAC 5. Enclosed is the draft modification of NPDES Permit No. IN0033073 which applies to the discharge from the City of Evansville East Wastewater Treatment Plant (WWTP). The enclosed Pages 1, 2- 5, and 18 of 49 are intended to replace the corresponding pages in the facility's current permit.

Pursuant to IC 13-15-5-1, IDEM will publish the draft permit document online at <https://www.in.gov/ideM/5474.htm>. Additional information on public participation can be found in the "Citizens' Guide to IDEM", available at <https://www.in.gov/ideM/6900.htm>. A 30-day comment period is available in order to solicit input from interested parties, including the general public.

Please review this document carefully and become familiar with the proposed terms and conditions. Comments concerning the draft permit should be submitted in accordance with the procedure outlined in the enclosed public notice form. If you have any questions concerning this modification, please contact John Donnellan at 317/234-0865 or jdonnell@idem.IN.gov.

Sincerely,

Leigh Voss, Chief
Municipal NPDES Permits Section
Office of Water Quality

Enclosures

cc: Harry Lawson, Certified Operator
Emily Wehmeyer, Donohue Associates

STATE OF INDIANA
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
AMENDED AUTHORIZATION TO DISCHARGE UNDER THE
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of the Federal Water Pollution Control Act, as amended, (33 U.S.C. 1251 et seq., the “Clean Water Act”) or (CWA), and IDEMs authority under IC 13-5, the Indiana Department of Environmental Management (IDEM) is issuing this permit to the

EVANSVILLE WATER AND SEWER UTILITY

hereinafter referred to as “the permittee.” The permittee owns and/or operates the **Evansville East Wastewater Treatment Plant**, a major municipal wastewater treatment plant located at 1500 Water Works Road, Evansville, Indiana, Vanderburgh County. The permittee is hereby authorized to discharge from the outfalls identified in Part I of this permit to receiving waters named the Ohio River in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in the permit. The permittee is also authorized to discharge from combined sewer overflow outfalls listed in Attachment A of this permit, to receiving waters named the Ohio River, Pigeon Creek, and Bee Slough in accordance with the effluent limitations, monitoring requirements, and other conditions set forth in this permit. This permit may be revoked for the nonpayment of applicable fees in accordance with IC 13-18-20.

The permit, as issued on November 29, 2016 is hereby amended as contained herein. The amended provisions shall become effective on _____. All terms and conditions of the permit not modified at this time remain in effect. Further, any existing condition or term affected by the modifications will remain in effect until the modified provisions become effective.

This permit and authorization to discharge, as amended, shall expire at midnight, January 31, 2022. In order to receive authorization to discharge beyond the date of expiration, the permittee shall submit such information and forms as are required by the Indiana Department of Environmental Management no later than 180 days prior to the date of expiration.

Issued on _____ for the Indiana Department of Environmental Management.

Jerry Dittmer, Chief
Permits Branch
Office of Water Quality

TREATMENT FACILITY DESCRIPTION

The City of Evansville currently operates two municipal wastewater treatment plants. This permit applies to the Evansville East Wastewater Treatment Plant which is a Class IV, 18 MGD conventional activated sludge treatment facility consisting of an influent flow meter, a fine bar screen, a vortex grit system, seven (7) primary clarifiers, three (3) aeration basins, three (3) final clarifiers, effluent chlorination/dechlorination, and an effluent flow meter. Sludge from the West WWTP is pumped to the East WWTP and combined with the East WWTP sludge for dewatering. Final solids are sent to a landfill for disposal. The new Sunrise effluent pump station is being constructed which transports flow to the new cascade Outfall 042. After completion of this construction, Outfall 042 will be the main plant outfall. Discharge through Outfall 003 and Outfall 040 (during severe flooding) will be utilized during periods when the Sunrise pump station is not functional.

The collection system is comprised of combined sanitary and storm sewers with eight (8) Combined Sewer Overflow (CSO) locations and one bypass point. The CSO locations have been identified and permitted with provisions in Attachment A of the permit. The bypass point has been identified in Part II.B.2 of the permit. The mass limits for CBOD₅, TSS and ammonia-nitrogen have been calculated utilizing the peak design flow of 22.5 MGD. This is to facilitate the maximization of flow through the treatment facility in accordance with this Office's CSO policy.

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from the outfall listed below in accordance with the terms and conditions of this permit. The permittee shall take samples and measurements at a location representative of each discharge to determine whether the effluent limitations have been met. Refer to Part I.B of this permit for additional monitoring and reporting requirements.

- Beginning on the effective date of this permit, and after completion of the Sunrise pump station project, the permittee is authorized to discharge from Outfall 042 which is located at Latitude: 37° 57' 38" N, Longitude: 87° 34' 24" W. Beginning on the effective date of this permit, the permittee is also authorized to discharge from Outfall 003, which is located at Latitude: 37° 57' 44" N, Longitude: 87° 34' 24" W, and from Outfall 040 (only used when Outfall 003 is fully submerged during severe flooding conditions), which is located at Latitude: 37° 57' 15" N, Longitude: 87° 34' 00" W. The discharge is subject to the following requirements:

TABLE 1

Parameter	Quantity or Loading			Quality or Concentration			Monitoring Requirements	
	Monthly Average	Weekly Average	Units	Monthly Average	Weekly Average	Units	Measurement Frequency	Sample Type
Flow [1]	Report	----	MGD	----	----	----	Daily	24-Hr. Total
CBOD ₅	3,004	4,506	lbs/day	16	24	mg/l	Daily	24-Hr. Composite
TSS	5,633	8,449	lbs/day	30	45	mg/l	Daily	24-Hr. Composite
Ammonia-nitrogen	1,746	2,629	lbs/day	9.3	14.0	mg/l	Daily	24-Hr. Composite
Fecal Coliform [2][3]	----	----	----	2,000	----	count/100 ml	Daily	Grab
Phosphorus								
Interim [4]	----	----	----	Report	----	mg/l	Monthly	24-Hr. Composite
Final [4]	----	----	----	1.0	----	mg/l	Daily	24-Hr. Composite
Total Kjeldahl Nitrogen [5] Report	----	----	lbs/day	Report	----	mg/l	Monthly	24-Hr. Composite
Nitrate/Nitrite Nitrogen [5] Report	----	----	lbs/day	Report	----	mg/l	Monthly	24-Hr. Composite
Nitrogen, Total (as N) [6] Report	----	----	lbs/day	Report	----	mg/l	Monthly	24-Hr. Composite

TABLE 2

<u>Parameter</u>	<u>Quality or Concentration</u>				<u>Monitoring Requirements</u>	
	<u>Daily Minimum</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
pH [7]	6.0	----	9.0	s.u.	Daily	Grab
Total Residual Chlorine [8]						
Final Effluent [9]	----	0.02	0.04	mg/l	Daily	Grab
<i>E. coli</i> [10]	----	125 [11]	235 [12]	cfu/100 ml	Daily	Grab

- [1] Effluent flow measurement is required per 327 IAC 5-2-13. The flow meter(s) shall be calibrated at least annually.
- [2] The effluent shall be disinfected on a continuous basis such that violations of the applicable bacteriological limitations (fecal coliform or *E. coli*) do not occur.
- [3] In order to comply with ORSANCO requirements, in accordance with 327 IAC 5-10-6(b), fecal coliform is limited to a monthly average of 2,000 count per 100 ml from November 1 through March 31. Fecal coliform shall be calculated as a geometric mean.
- [4] Refer to the Schedule of Compliance in Part I.D of this permit.
- [5] The concentration and loading values for total kjeldahl nitrogen and nitrate/nitrite nitrogen shall be reported as a daily maximum. The permittee must use approved 40 CFR 136 methods for the analyses. March DMR, regardless of which of the months within the quarter the sample was taken.
- [6] Total Nitrogen shall be determined by testing Total Kjeldahl Nitrogen (TKN) and Nitrate + Nitrite and reporting the sum of the TKN and Nitrate + Nitrite results (reported as N). Nitrate + Nitrite can be analyzed together or separately. Monitoring for Total Nitrogen is required in the effluent only.

The following EPA methods are recommended for use in the analysis of TKN and Nitrate + Nitrite. Alternative approved 40 CFR 136 methods may be utilized.

<u>Parameter</u>	<u>Method</u>
TKN	350.1, 351.1, 351.2
Nitrate	300.0, 300.1, 352.1
Nitrite	300.1, 353.2
Nitrate + Nitrite	300.0, 300.1, 353.2

- [7] If the permittee collects more than one grab sample on a given day for pH, the values shall not be averaged for reporting daily maximums or daily minimums. The permittee must report the individual minimum and the individual maximum pH value of any sample during the month on the Monthly Report of Operation forms.
- [8] The effluent shall be disinfected on a continuous basis such that violations of the applicable bacteriological limitations (fecal coliform or *E. coli*) do not occur from April 1 through October 31, annually. If the permittee uses chlorine for any reason, at any time including the period from November 1 through March 31, then the limits and monitoring requirements in Table 2 for Total Residual Chlorine (TRC) shall be in effect whenever chlorine is used.
- [9] In accordance with 327 IAC 5-2-11.1(f), compliance with this permit will be demonstrated if the measured effluent concentrations are less than the limit of quantitation (0.06 mg/l). If the measured effluent concentrations are above the water quality-based permit limitations and above the Limit of Detection (LOD) specified by the permit in any of three (3) consecutive analyses or any five (5) out of nine (9) analyses, the permittee is required to reevaluate its chlorination/dechlorination practices to make any necessary changes to assure compliance with the permit limitation for TRC. These records must be retained in accordance with the record retention requirements of Part I.B.8 of this permit.

Effluent concentrations greater than or equal to the LOD but less than the Limit of Quantitation (LOQ), shall be reported on the discharge monitoring report forms as the measured value. A note must be included with the DMR indicating that the value is not quantifiable. Effluent concentrations less than the limit of detection shall be reported on the discharge monitoring report forms as less than the value of the limit of detection. For example, if a substance is not detected at a concentration of 0.01 mg/l, report the value as < 0.01 mg/l. At present, two methods are considered to be acceptable to IDEM, amperometric and DPD colorimetric methods, for chlorine concentrations at the level of 0.06 mg/l.

<u>Parameter</u>	<u>LOD</u>	<u>LOQ</u>
Chlorine	0.02 mg/l	0.06 mg/l

Case-Specific MDL

The permittee may determine a case-specific Method Detection Level (MDL) using one of the analytical methods specified above, or any other test method which is approved by IDEM prior to use. The MDL shall be derived by the procedure specified for MDLs contained in 40 CFR Part 136, Appendix B, and the limit of quantitation shall be set equal to 3.18 times the MDL. Other methods may be used if first approved by the U.S. EPA and IDEM.

- [10]The *Escherichia coli* (*E. coli*) limitations apply from April 1 through October 31 annually.

[11]The monthly average *E. coli* value shall be calculated as a geometric mean. Per 327 IAC 5-10-6, the concentration of *E. coli* shall not exceed one hundred twenty-five (125) cfu or mpn per 100 milliliters as a geometric mean of the effluent samples taken in a calendar month. No samples may be excluded when calculating the monthly geometric mean.

[12]If less than ten samples are taken and analyzed for *E. coli* in a calendar month, no samples may exceed two hundred thirty-five (235) cfu or mpn as a daily maximum. However, when ten (10) or more samples are taken and analyzed for *E. coli* in a calendar month, not more than ten percent (10%) of those samples may exceed two hundred thirty-five (235) cfu or mpn as a daily maximum. When calculating ten percent, the result must not be rounded up. In reporting for compliance purposes on the Discharge Monitoring Report (DMR) form, the permittee shall record the highest non-excluded value for the daily maximum.

2. Minimum Narrative Limitations

At all times the discharge from any and all point sources specified within this permit shall not cause receiving waters:

- a. including the mixing zone, to contain substances, materials, floating debris, oil, scum or other pollutants:
 - (1) that will settle to form putrescent or otherwise objectionable deposits;
 - (2) that are in amounts sufficient to be unsightly or deleterious;
 - (3) that produce color, visible oil sheen, odor, or other conditions in such degree as to create a nuisance;
 - (4) which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans;
 - (5) which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses.
- b. outside the mixing zone, to contain substances in concentrations which on the basis of available scientific data are believed to be sufficient to injure, be chronically toxic to, or be carcinogenic, mutagenic, or teratogenic to humans, animals, aquatic life, or plants.

3. Additional Discharge Limitations and Monitoring Requirements

Beginning on the effective date of the permit, the effluent from Outfalls 042, 003 and 040, as applicable, shall be limited and monitored by the permittee as follows:

E. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The 1977 Clean Water Act explicitly states, in Section 101(3) that it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited. In support of this policy the U. S. EPA in 1995 amended 40 CFR 136.3 (Tables IA and II) by adding testing methods for measuring acute and short-term chronic toxicity of whole effluents and receiving waters. To adequately assess the character of the effluent, and the effects of the effluent on aquatic life, the permittee shall conduct Whole Effluent Toxicity Testing. Part 1 of this section describes the testing procedures, Part 2 describes the Toxicity Reduction Evaluation (TRE) which is only required if the effluent demonstrates toxicity, as described in paragraph f.

1. Whole Effluent Toxicity Tests

The permittee shall conduct the series of bioassay tests described below to monitor the toxicity of the discharge from Outfall 042.

a. Bioassay Test Procedures and Data Analysis

All test organisms, test procedures and quality assurance criteria used shall be in accordance with Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002 or most recent update.

- (1) Any circumstances not covered by the above methods, or that require deviation from the specified methods shall first be approved by the IDEM's Permits Branch Toxicologist.
- (2) The determination of effluent toxicity shall be made in accordance with Data Analysis general procedures as outlined in Section 11, "Acute Toxicity Data Analysis" of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002.

b. Types of Bioassay Tests

- (1) The permittee shall conduct a 96-hour definitive static-renewal LC₅₀ bioassay using Fathead Minnow (*Pimephales promelas*). The test shall be conducted on a 24-hour composite sample of the final effluent. All test solutions shall be renewed daily. On day three, a fresh 24-hour composite sample of the effluent shall be used to renew the test solutions.
- (2) The permittee shall conduct a 48-hour definitive static renewal LC₅₀ bioassay using *Ceriodaphnia spp.* and *Daphnia spp.* The tests shall be conducted on a 24-hour composite sample of final effluent. All test solutions shall be renewed daily.



**National Pollutant Discharge Elimination System
Fact Sheet for the
City of Evansville East Wastewater Treatment Plant**

**Draft: June 10, 2021
Final: TBD**

Indiana Department of Environmental Management

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
Toll Free (800) 451-6027
www.idem.IN.gov

Permittee:	Evansville Water and Sewer Utility The Honorable Lloyd Winnecke, Mayor 1 NW Martin Luther King, Jr. Boulevard Evansville, Indiana 47708 ausser@evansville.in.gov 812-436-4962
Existing Permit Information:	Permit Number: IN0033073 Expiration Date: January 31, 2022
Facility Contact:	Harry Lawson, Certified Operator hlawson@ewsu.com 812-483-8065
Facility Location:	1500 Waterworks Road Evansville, Indiana 47713 Vanderburgh County
Receiving Stream:	Ohio River
GLI/Non-GLI:	Non-GLI
Proposed Permit Action:	Modification
Date Application Received:	May 25, 2021
Facility Category	NPDES Major Municipal
Permit Writer:	John Donnellan, Senior Environmental Manager jdonnell@idem.in.gov 317-234-0865

Treatment Plant Location Latitude: 37° 57' 15" N
Longitude: 87° 34' 05" W

Expiration Date

The expiration date of the permit has not changed. The permit, as modified, will expire at midnight on January 31, 2022.